

ABSTRACT

In order to direct content requests to an appropriate content serving site in a computer network, a phased learning approach is utilized to ensure that, as best as possible, the request is made to content serving site with the shortest delay. In a setup phase, an indirect path return geographic sever load balancer times sends transit time requests to all of the individual content serving sites so that the transit time requests all arrive at the content serving sites at the same time. Therefore, when the requesting fixed location receives communications from the content serving sites, it can easily tell which content serving site has the least delay by an established race condition. The winner of the race may then be relayed to the indirect path return geographic server load balancer for later usage. In an execution mode, only the  $m$  fastest content serving sites and  $n$  other sites (used to test random and new sites) are sent a transit time request when a DNS request arrives from the requesting fixed location. The particular  $m$  fastest content serving sites and  $n$  other sites may be dynamically updated so as to ensure the most reliable directing of requests. This solution provides a very efficient and effective means by which to determine closest content serving sites while keeping load balancer-created traffic at a minimum.